



Docket No.: 50229-421

PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Customer Number: 20277
Sylvia DAUNERT, et al. : Confirmation Number: 8471
Application No.: 10/811,138 : Group Art Unit: 1645
Filed: March 29, 2004 : Examiner:
For: AEQUORIN AND OBELIN MUTANTS WITH DIFFERING WAVELENGTHS AND BIOLUMINESCENCE

INFORMATION DISCLOSURE STATEMENT

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

In accordance with the provisions of 37 C.F.R. 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the documents listed on the attached forms PTO-1449. It is respectfully requested that the documents be expressly considered during the prosecution of this application, and that the documents be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is being filed within three months of the U.S. filing date OR before the mailing date of a first Office Action on the merits. No certification or fee is required.

Please charge any shortage in fees due in connection with the filing of this paper,
including extension of time fees, to Deposit Account 500417 and please credit any excess fees to
such deposit account.

Respectfully submitted,

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Date: October 26, 2004



SHEET 1 OF 3

INFORMATION DISCLOSURE CITATION IN AN APPLICATION (PTO-1449)				ATTY. DOCKET NO. 50229-421	SERIAL NO. 10/811,138	
				APPLICANT Sylvia DAUNERT, et al.		
				FILING DATE March 29, 2004	GROUP 1645	
U.S. PATENT DOCUMENTS						
EXAMINER'S INITIALS	CITE NO.	Document Number Number-Kind Code ₂ (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	
	US	5,093,240	03-03-1992	Inouye et al.		
	US	5,139,937	08-18-1992	Inouye et al.		
	US	5,422,266	06-06-1995	Cormier et al.		
	US	5,023,181	06-11-1991	Inouye		
	US	5,182,227	11-10-1992	Cormier		
	US	5,798,441	08-25-1998	Cormier et al.		
	US	5,766,941	06-16-1998	Cormier et al.		
	US	5,744,579	04-28-1998	Cormier et al.		
	US	5,541,309	07-30-1996	Prasher		
	US	5,491,084	02-13-1996	Chalfie et al.		
	US	5,360,728	11-01-1994	Prasher		
	US	5,876,995	03-02-1999	Bryan		
FOREIGN PATENT DOCUMENTS						
EXAMINER'S INITIALS	CITE NO.	Foreign Patent Document Country Code ₃ -Number +-Kind Codes (<i>if known</i>)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Figures Appear	Translation
						Yes
						No
OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)						
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.				
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OTHER ART (Including Author, Title, Date, Pertinent Pages, Etc.)				
EXAMINER'S INITIALS	CITE NO.	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.		
		SHIMOMURA, O., et al. "Light-emitting properties of recombinant semi-synthetic aequorins and recombinant fluorescein-conjugated aequorin for measuring cellular calcium" Cell Calcium (1993) 14, pp. 373-378		
		KUROSE, K., et al. "Bioluminescence of the Ca ²⁺ -binding photoprotein aequorin after cysteine modification" Proc. Natl. Acad. Sci. USA, January 1989, Vol. 86, pp. 80-84		
		LEWIS, J.C., et al. "Bioluminescence and Secondary Structure Properties of Aequorin Mutants Produced for Site-Specific Conjugation and Immobilization" Bioconjugate Chem. 2000, American Chemical Society, 11, pp. 65-70		
		SHRESTHA, S., et al. "Cysteine-Free Mutant of Aequorin as a Photolabel in Immunoassay Development" Bioconjugate Chem. 2002, American Chemical Society, 13, pp. 269-275		
		TSUJI, Frederick I., et al. "Site-specific mutagenesis of the calcium-binding photoprotein aequorin" Proc. Natl. Acad. Sci. USA, Vol. 83, pp. 8107-8111, November 1986		
		PRASHER, Douglas, et al. "Cloning and Expression of the cDNA Coding for Aequorin, A Bioluminescent Calcium-Binding Protein," Biochemical and Biophysical Research Communications, Vol. 126, No. 3, 1985, pp. 1259-1268		
		PRASHER, Douglas C., et al. "Isolation and Expression of a cDNA Coding for Aequorin, the Ca ²⁺ -Activated Photoprotein from <i>Aequorea Victoria</i> " Methods in Enzymology, 1986, Vol. 133, pp. 288-297		
		PRASHER, Douglas C., et al. "Sequence Comparisons of Complementary DNAs Encoding Aequorin Isotypes" Biochemistry 1987, 26, pp. 1326-1332		
		CHARBONNEAU, Harry, et al. "Amino Acid Sequence of the Calcium-Dependent Photoprotein Aequorin" Biochemistry 1985, 24, pp. 6762-6771		
		SHIMOMURA, Osamu et al. "Resistivity to denaturation of the apoprotein of aequorin and reconstitution of the luminescent photoprotein from the partially denatured apoprotein" Biochem. J. (1981) 199, pp. 825-828		
		INOUE, Satoshi, et al. "Overexpression and Purification of the Recombinant Ca ²⁺ -Binding Protein, Apoaequorin" J. Biochem. 105 (1989) pp. 473-477		
		INOUE, Satoshi, et al. "Expression of Apoaequorin Complementary DNA In <i>Escherichia coli</i> " Biochemistry 1986, 25, pp. 8425-8429		
		INOUE, Satoshi, et al. "Cloning and sequence analysis of cDNA for the luminescent protein aequorin" Proc. Natl. Acad. Sci. USA, Vol. 82, pp. 3154-3158, May 1985		
		PRENDERGAST, Franklyn G., et al. "Chemical and Physical Properties of Aequorin and the Green Fluorescent Protein Isolated from <i>Aequorea forskalea</i> " J. Am. Chem. Soc. Vol. 17, No. 17, 1978, pp. 3448-3453		
		DEO, Sapna K., et al. "Bioluminescence Detection of Proteolytic Bond Cleavage by Using Recombinant Aequorin" Analytical Biochemistry 281, pp. 87-94 (2000)		
		MALIKOVA, Natalia, P., et al. "Spectral tuning of obelin bioluminescence by mutations of Trp92" FEBS Letters 554 (2003) pp. 184-188		
		VYSOTSKI et al. "Violet bioluminescence and fast kinetics from W92F obelin: structure-based proposals for the bioluminescence triggering and the identification of the emitting species." Biochemistry, 2003 May 27, 2003, 42(20) pp. 6013-6024		
		BONDAR, et al. "Role of conservative residue Cys158 in the formation of an active photoprotein complex of obelin" Biochemistry (Moscow) Vol. 66, No. 9, pp. 1014-1018		
		OHMIYA et al. "Two excited states in aequorin bioluminescence Induced by tryptophan modification" FEBS, Vol. 301, No. 2, April 1992, pp. 197-201		
		OHMIYA et al. "Bioluminescence of the Ca ²⁺ -binding photoprotein, aequorin, after histidine modification" FEBS, Vol. 320, No. 3, April 1993, pp. 267-270		
		Lewis, J.C., et al. "Bioluminescence and Secondary Structure Properties of Aequorin Mutants Produced for Site-Specific Conjugation and Immobilization" Bioconjugate Chem. 2000, 11, pp. 65-70		
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